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SIEVERT A?/AU SUBRAMONEY S?/AU (L3 OR L4 OR L5 OR L6) AND L2 12018-19-8/RN AMOS T7/AU RAO V7/AU PLU=ON PLU=ON PLU=ON PLU=ON PLU=ON 1)SEA FILE-REGISTRY ABB-ON 562)SEA FILE-HCAPLUS ABB-ON 48)SEA FILE-HCAPLUS ABB-ON 3927)SEA FILE-HCAPLUS ABB-ON 82)SEA FILE-HCAPIUS ABB-ON 75)SEA FILE-HCAPIUS ABB-ON 3 SEA FILE-HCAPIUS ABB-ON D QUE L7 222222

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L14 OR L15) AND 1)SEA FILE-REGISTRY ABB-ON PLU-ON 12018-19-8/RN CET. PLU-ON 18 1- NAME : 7 TERMS SUBRAMONEY S7/AU (L12 OR L13 OR L1 SIEVERT A?/AU L10 OR L8 AMOS T?/AU RAO V?/AU ទ NO=UJI d PLU-ON PLU=ON PLU-ON PLU-UN PLU=ON L8 1- NAME 5)SEA FILE-WPIX ABB-ON 1 471)SEA FILE-WPIX ABB-ON 1 84)SEA FILE-WPIX ABB-ON 1 18)SEA FILE-WPIX ABB-ON 2 2 SEA FILE-WPIX ABB-ON P 111 SEL PLU=ON L8 1- NAM 30)SEA FILE=WPIX ABB=ON 30)SEA FILE=WPIX ABB=ON => D QUE L16 L8 (111 111 113 113 114

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BYOCESSING COMPLETED FOR L7
3 DUP REM L16 L7 (2 DUPLICATES REMOVED) 3 DUP REM LIG L7 (2 DUPLICATES REMOVED)
ANSWERS '1-2' FROM FILE WPIX
ANSWER '3' FROM FILE HCAPLUS

=> D IALL ABEQ TECH 1-2; D IBIB ED ABS 3

THE THOMSON CORP ON STN DUPLICATE L70 ANSWER 1 OF 3 WPIX COPYRIGHT 2007

Preparation of 1,1,1,3,3-pentafluoropropane and 1,1,1,3,3,3-haxafluoropropane useful as blowing agent and refrigerant comprises reaction of hydrogen fluoride with halopropene in presence of fluorination catalyst followed WPIX C2005-103557 [34] 2005-333250 [34] ACCESSION NUMBER: DOC. NO. CPI: TITLE:

AGO; E16; G04; J04; J07; K01 RAO V N M; SIEVERT A C; RAO V 4 by hydrogen ; SIEVERT DERWENT CLASS: INVENTOR:

(DUPO-C) DU PONT DE NEMOURS 6 CO E I 107 PATENT ASSIGNEE: COUNTRY COUNT:

PATENT INFORMATION:

Page 2 of 36

MAIN IPC Serial No.:10/572,628 Page 3 of 36 STIC STN search 2/9/2007

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MAIN IPC		DATE	2004-US34455 20041013 2004-195597 20041013 2004-US34455 20041013 2004-281282 20041013		744 P	[1,A]; CO7CO017-23 [1,A]; [1,C]; BO1JO023-16 [1,C]; [1,C]; BO1JO027-12 [1,A]; [1,A]; CO7CO017-00 [1,C]; [1,A]; CO7CO017-23 [1,A]; [1,A]	ABSTRACT. ABSTRACT. ABSTRACT. WO 2005037744 Al UPAB: 20051222 NOVELIY - Preparation of 1,1,1,3,3-pentafluoropropane fluoride (HF) NOVELIY - Preparation of 1,1,1,3,3-pentafluoropropane (B1) involves reacting hydrogan fluoride and at least one halopropene (A2) and 2-chloro-1,1,1,3,3-pentafluoropropene (A2) and 2-chloro-1,1,1,3,3-pentafluoropropene (A2) and 192 with hydrogen. PRANILED DESCRIPTION - Preparation of 1,1,1,3,3-pentafluoropropene (A2) and 1,1,1,3,3-pentafluoropropene (A2) and at least one halopropene of an integration of 1,1,1,3,3,3-pentafluoropropene (A2) and 2-chloro-1,1,3,3,3-pentafluoropropene (A2) and 2-chloro-1,1,1,3,3,3-pentafluoropropene (A2) and 2-chloro-1,1,1,3,3,3-pentafluoropropene (A2) and 2-chloro-1,1,1,3,3,3-pentafluoropropene (A2) and 2-chloro-1,1,1,3,3,3-pentafluoropropene (A2) and (B2) produced in step (B). The fluorination produce (A1) and (B1); and produced in step (B). The fluorination of 1,1,1,3,3-pentafline alpha-chromium oxide (alpha-Cr203), composition (C2) comprising zinc halide and alpha-chromium oxide (alpha-Cr203), composition (C3) comprising comprising zinc halide and alpha-chromium oxide (alpha-Cr203), composition (C3) comprising (C2) comprising spent. X = F or C1 X = F or C1 USE - For preparation of 1,1,1,3,3-pentafluoropropene (HFC-245fa) and USE - For preparation of 1,1,1,3,3-pentafluoropropene (HFC-226fa) (claimed) useful as blowing agent, use thinguishant and refrigerant or serve as affective ADVANTACE - The method produces halogenated hydrocarbons containing norms. Prime, having lower ozone deplation potential and can serve as affective Dairene, having lower ozone deplation potential and can serve as affective Dairene, having lower ozone deplation potential and can serve as affective Dairene Pentageneral or a pertageneral or a	
- 20	1	APPLICATION		PATENT NO	WO 2005037744 WO 2005037744	017-21 023-00 027-06 037-26 0017-21	1,1,3,3-pentafinous casence of flucasence of lugasence of flucasence of	
-	1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	APP	WO WO AU	انم	33	2	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,	
	WEEK (200534) (200643) (200674)				5 E		on of 1, was (B1); and (B2); and (B2	
ı	KIND DATE A1 20050428 A1 20060628 A1 20050428			KIND	Al Based Al Based	us 2003-511354P C07C0017-20 [1,3 C07C0019-08 [1,3 B01J0023-00 [1,3 B01J0023-26 [1,3 C07C0017-20 [1,4 C07C0019-00 [1,4	NOVELTY - Preparation of 1.1, 3, 3-3-seafluoropropens in present of 1.2, 3, 3-3-seafluoropropens (B2) is reacting beropropens (B2); and reacting beropropens (B2); and reacting beropropens (B2); and reacting hydrogen fluoric (B2); and an example (B2); and (B2) propropens (B2); and (B2) propropens (B2); and (B2) propropens (B2); and (B2	
	2005037744 1673326 2004281282	:5114	2005037744 P 1673326 A1 1673326 A1 2004281282 A	FILING DETAILS:	EP 1673326 AU 2004281282	PRIORITY APPLM. INFO: INT. PATEM CLASSIF.: IPC ORIGINAL: IPC RECLASSIF.:	BASIC ABSTRACT: NOVELIY - Proparation of 11,1,3,3-pentaflu NOVELIY - Proparation of 11,1,1,3-g-pentaflu NOVELIY - Proparation of 11,1,1,3-g-pentafluoropropens of fluori and at least one halopropene in presence of fluori and at least one halopropene in presence of fluori persons (B2); and reacting (A2) and (B2 persons (B2); and reacting (A2) and (B2 in locoprises: and 1,1,1,3,3,3-hexafluoropropene (B1) comprises: and 1,1,1,3,3,3-hexafluoropropene (B1) comprises: and 1,1,1,3,3,3-pentafluoropropene (B1) comprises: (a) reacting (A2) and (B2) produced in ste hexafluoropropene (B2); hexafluoropropene (B2); hexafluoropropene (B2); hexafluoropropene (B2); cathoropropene (B2); hexafluoropropene (B2); cathoropropene (B1); and produce (A1) and (B1); and cathoropropene (B2) I = Feoverating (A1) and (B1) produced in ste (C1) reacted with fluorinating agent and composition (C2) treated with fluorinating agent treated with the fluorinating agent (C2) treated with fluorinating agent (C3) treated with fluorinating agent (C3) steated with the fluorinating agent (C3) steated with the fluorinating agent (C3) steated with fluoropropane (HEC-236fa) (claim (L1,1,3,3,3-hexafluoropropane (HEC-236fa) (claim (L1,1,3,3,3-hexafluoropropane (HEC-236fa) (claim (L1,1,3,3,3-hexafluoropropane (HEC-236fa) (claim (C1) treated vith the corne depletion potential and chlorine, having lower ozone depletion potential and replacement for dichlorodifluoromethane in refrigerat	
201141 140	PAG WO	APPLICAT	MA B B B B B B B B B B B B B B B B B B B	FILING I	i m «	PRIORIT INT. PA IPC IPC RE	BASIC Chlo Chlo replo	

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RANUAL CODE:

KOI-A; RIO-HO3A3; G04-B01; J04-E01; J07-A08;

KOI-A; N03-D01; N03-F

MANUAL COLE: KO TECH INORGANIC CHEMISTRY	K01-A; N03-D01; N03-F CHEMISTRY - Preferred Components: The Z	is: The ZnCr204 contains (atom%): In (Cl) and (Cl), are least 90
(10-67) the chr chromit a. The	<pre>ium (10-67) and zinc (ar course) of the chromium is present as chromium on the course iotal chromium and zinc in (C1) and (C3) is present iotal chromium and zinc in (C1) and (C3) is present atoms. The zinc relative to the total chromium and in present in an amount of 0.1-25 (preferably 2-10)</pre>	and zinc (at ready or continuous oxide. The zinc relative to omium is present as chromium oxide. The zinc in an amount of um and zinc in (CI) and (C3) is present in an amount of zinc to the total chromium and zinc in (C2) and zinc relative to the total chromium and zinc in (C2) and in an amount of 0.1-25 (preferably 2-10) atom®.
4SWER 2 OF 3 V	WPIX COPYRIGHT 2007	THE THOMSON CORP on SIN DUPLICATE
ACCESSION NUMBER: 2 DOC. NO. CPI: C TITLE:	2005-333228 [34] WPIX C2005-103545 [34] Chromium containing catalyst composit Chromium containing distribution in hal changing fluorine distribution in hal nocrporating fluorine in saturat or incorporating fluorine in chromite hydrocarbon comprises ainc chromite hydrocarbon comprises ainc chromite	g <u>0</u> 5
DERWENT CLASS: INVENTOR:	E19; JOH PAROS T; PAROS T G; RAO V; PRACO V N M; SIEVERT A; SI	00, 100
PATENT ASSIGNEE:	G; SUBLEMENTS: (CUPO-) (DUPO-) (MALL-1) MALLIKARJUNA V N; (SI SUBRAMONEY S	MOURS & CO E I; (AMOS-I) AMOS I G, V N; (SIEV-I) SIEVERT A C; (SUBR-I)
COUNTRY COUNT:	107	
PATENT INFORMATION:		
PATENT NO P	KIND DATE WEEK	
WO 2005037431 EP 1673165 AU 20042B1B1E US 20070004585	A1 20050428 (200534)* A1 20060628 (200643) A1 20050428 (200681) A1 20070104 (200703)	EN 31(2) EN EN
APPLICATION DETAILS:		
PATENT NO	KIND	
7431 1816 5 A1 15 A1 104589 004589	Al Al S Al Provisional S Al	WO 2004-US34446 20041013 MD 2004-BB1816 20041013 AD 2004-US34446 20041013 WO 2004-US34446 20031014 WO 2004-US34446 20041013 US 2006-572628 20060317
FILING DETAILS:		•
PATENT NO	KIND	1
EP 1673165 AU 2004281816	Al Based on Al Based on	WO 2005037431 A WO 2005037431 A
PRIORITY APPLM. INFO:	O: US 2003-511353P US 2006-572628	
<pre>INT: PATENT CLASSIF.:</pre>	B01J0023-00 [I,	B01J0023-26 [1,A]; B01J0023-86 [1,A);
	Page	Page 4 of 36

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#013021-00 [I,A] #0130023-00 [I,C]; #0130023-16 [I,C]; #0130023-00 [I,A]; #0130023-00 [I,A]; #0130023-20 [I,A]; #0130023-20 [I,A]; #0130023-20 [I,A]; #0130023-00 [I,C]; #0130035-00 [I,C]; #0130035-00 [I,C]; #0130035-00 [I,C]; #0130037-00 [I,C]; #0130037-03 [I,A]; #0130037-03 [I,A]; #0130037-03 [I,A]; #0130037-25 [I,A]; #0130037-37 [I,A] B01J0023-86 [I,A]; B01J0035-00 [I,A]; B01J0037-03 [I,A]; C07C017-00 [I,A]; C07C017-37 [I,A]; IPC RECLASSIF.:

BASIC ABSTRACT:

NOVELTY - A chromium containing catalyst composition (CI) comprises sinc chromite (ZnCr204) and crystalline alpha-chromium oxide. The ZnCr204 contains (atom: 9): chromium (I) - 67) and zinc (at least 70). The 90 atom % of the chromium is present as chromium oxide.

The DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the

(a) a chromium containing catalyst composition (C2) prepared by treatment of (C1) with a fluorinating agent (preferably anhydrous hydrogen

(b) changing (M1) the fluorine distribution in a halogenated

hydrocarbon or incorporating fluorine in optionally saturated hydrocarbon in the presence of (CI) or (C2) as a catalyst; and catalyst and (C) preparation (M2) of (C1) involving co-precipitating a solid by adding ammonium hydroxide to an aqueous solution of a soluble zinc salt and a soluble trivalent chromium salt containing at least 3 moles of nitrate per mole of chromium in the solution and has a zinc concentration of 5 - 25 mole, has been added to the solution; collecting the collecting the discussion of the solution driving the co-precipitated solid formed; drying the collected solid; and then calcining the dried solid.

hydrocarbon (cleimed). In the preparation of e.g. refrigerants, propellants, USE - For changing the fluorine distribution in a halogenated hydrocarbon or for incorporating fluorine in a saturated or unsaturated

blowing agents and fire extinguishents.

ADVANTAGE The catalyst composition is effectively changes the fluorine distribution in a halogenated hydrocarbon; and incorporates fluorine in saturated hydrocarbon. MANUAL CODE:

E35-P; J04-E01; J04-E04; N03-D01;

N03-F

disproportionating the halogenated hydrocarbon compound in vapor phase in the presence of (C1) or (C2). The fluorine content of a halogenated hydrocarbon is decreased by dehydrofluorinating or reacting the compound with hydrogen chloride in the presence of (C1) or (C2). In (M2), Increased is formed in the calcining step. INORGANIC CHEMISTRY - Preferred Composition: The ZnCr204 comprises (atom \$\epsilon\$): chromium (20 - 50) and zinc (at least 90). In the composition greater \$\epsilon\$): chromium that is not present as zinc preferred Method: The fluctine ontent of a halogenated hydrocarbon preferred Method: The fluctine content of a halogenated hydrocarbon compound is increased by reacting the compound with hydrogan fluctide (HF) or HF and chlorine in the vapor the compound with hydrogan fluctine (HF) or HF and chlorine in the vapor halogenated hydrocarbon compound is changed by isomerizing or halogenated h

US COPYRIGHT 2007 ACS on STN 2005:371188 HCAPLUS Full-text 142:413307 L70 ANSWER 3 OF 3 HCAPLUS 2005 ACCESSION NUMBER: 142:

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Process for the catalytic properation of 1,1,1,3,3-pentafluoropropene and 1,1,1,2,3-Serial No.:10/572,628 Page 6 of 36 STIC STN search 2/9/2007

pentally or partial state stat PATENT ASSIGNEE(S): INVENTOR (S): SOURCE:

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: DOCUMENT TYPE:

English Patent

0041013 APPLICATION NO. 20050428 ¥ 8 KIND WG 2005037743 PATENT NO.

ZM, ZW, AM, CZ, DE, DK, PT, RO, SE, ML, MR, NE, 20041013 20031014 20041013 SE, MC, PT 20041013 20060317 Ž, CASREACT 142:413307; MARPAT 142:413307 K, ES, FR, GB, GR, IT, LL, LU, NI Y, TR, BG, CZ, EE, HU, PL, SK 20661122 CM 2004-80030175 20660928 US 2006-572626 US 2005-511284P WO 2004-US:4454 AU 2004-281281 CA 2004-2539936 EP 2004-795596 ž8 £, ₹, ŘŠ. A 1, % 20050428 20060628 艺艺品 20050428 8,9 A1 20 A1 20 A1 20 DE, DK, E 英岛岛 Ų R: AT, BE, CH, IE, SI, FI, PRIORITY APPLN. INFO .: .AU 2004281281 CA 2539936 EP 1673325 S CN 1867529 US 2006217578 EE, SI, **第135**5 ż RW:

A process for the catalytic preparation of 1,1,1,3,3-pentafluoropropane and 1.1,1.2,3-pentafluoropropane is described.
THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:
REFERENCE COUNT: OTHER SOURCE(S): 8 8

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1.20 AND 1.33 (1.34 OR 1.35) (1.27 OR 1.28 OR 1.31 OR FLUORINATION CATALYSTS/CT L18 AND L33 (L18 OR L20)) AND L24 L19 AND CATAL?/OBI L29 AND L23 HYDROGEN_ELUORI DE/ CN 7664-39-3/ CRN 12018-19-8/RN L17(L)CAT/RL L19(L)PREP/RL 1756) (LZ7 OR L30) 118 AND 1 8 Z Z PLU=ON NO=DId PLU=ON PLU=ON PLU=ON PIU-O PLU-O NO=Mid NO=MI PLU=ON 117)SEA FILE-HCAPLUS ABB-ON PI 562)SEA FILE-HCAPLUS ABB-ON PI 112)SEA FILE-HCAPLUS ABB-ON PI 1)SEA FILE-HCAPLUS ABB-ON PI 208)SEA FILE-REGISTRY ABB-ON P 42332)SEA FILE-HCAPLUS ABB-ON P FILE-REGISTRY ABB=ON ABB=ON 800)SEA FILE-HCAPLUS ABB=ON 4)SEA FILE-HCAPLUS ABB=ON 0)SEA FILE-HCAPLUS ABB=ON 191)SEA FILE-HCAPLUS ABB=ON ABB=ON ABB=ON ABB=ON ABB=ON ABB=ON ABB=ON ABB=ON 0)SEA FILE=HCAPLUS 4)SEA FILE=HCAPLUS 1016)SEA:FILE=HCAPLUS 3) SEA FILE-HCAPLUS SEA FILE-HCAPLUS FILE=HCAPLUS LE-HCAPLUS 3)SEA FILE-HCAPLUS 4) SEA FILE-HCAPLUS 4) SEA FILE-HCAPLUS 2) SEA FI 1)SEA 1)SEA D QUE 1.37 1.21 1.22 1.23 1.24 1.26 1.29 1.30 1.31 1.33 1.34 1.35

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>>> IPC Reform reclassification data for the backfile is being loaded into the database during January 2007.
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http://www.stn-international.de/training_center/patents/stn_quide.pdf FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE.

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http://www.stn-international.de/stndatabases/details/lpc_reform.html and http://scientific.thomson.com/media/scpdf/lpcrdwpi.pdf PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE

http://www.stn-international.de/stndatabases/details/dwpi_r.html <<< >>> FOR DETAILS ON THE, NEW AND ENHANCED DERWENT WORLD PATENTS INDEX PLEASE SEE

>>> New and revised Manual Codes went live in Derwent World Patents Index
To view the lists of new, revised and retired codes for both CPI and //scientific.thomson.com/dwpi-manualcoderevision <</rr>
IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE EPI, please go to:

1)SEA FILE=REGISTRY ABB=ON PLU=ON 12018-19-8/RN => D QUE L69

BI, ABEX

Page 8 of 36

L62 AND CATAL?/BI,ABEX L62 AND L65 L66 AND (PY<=2003 OR AY<=2003 OR 1)SEA FILE-REGISTRY ABB-ON PLU-ON HYDROGEN FLUORIDE/GN SEL PLU-ON LS8 1- NAME: Scrial No.: 10/572,628 Page 9 of 36 STIC STN search 2/9/2007 (L67 OR L68) L61 OR L58 14 TERMS L64 OR L59 PLU=ON 30)SEA FILE-WPIX ABB-ON PLU-ON 30)SEA FILE-WPIX ABB-ON PLU-ON PLU=ON PLU=ON PLU=ON PLU-ON L59 1- NAME : 20 SEA FILE-WPIX ABB-ON 14553)SEA FILE-WPIX ABB-ON 21)SEA FILE-WPIX ABB-ON 3)SEA FILE-WPIX ABB-ON 14552) SEA FILE-WPIX ABB=ON 20) SEA FILE=WPIX ABB=ON . 697 168 168

-> S L69 NOT L16 L71 18 L69 NOT L16

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COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS) 22 DUP REM LTI LT2 (1 DUPLICATE REMOVED)
ANSWERS '1-10' FROM FILE WPIX
ANSWERS '19-22' FROM FILE HCAPLUS PROCESSING COMPLETED FOR L72 COPYRIGHT (C) 2007 AMERICAN (PROCESSING COMPLETED FOR L/1

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Serial No.:10/572,628 Page 10 of 36 STIC STIN search 2/9/2007 -> D IALL ABEQ TECH 1-18;D IBIB ED ABS 19-22

production of fluoro-aromatic cpds. - by contacting corresp. THE THOMSON CORP ON STN chloro-aromatic cpd with hydrogen chloro-aromatic cpd with hydrogen chloro-aromatic cpd with hydrogen WPIX PIX COPYRIGHT 2007 1994-273574 [34] L73 ANSWER 1 OF 22 DUPLICATE 1 ACCESSION NUMBER: DOC. NO. CPI: TITLE:

Zinc-promoted fluorination catalyst

RANGBOTTOM J G; SCOTT J D (ZENE-C) ZENEGA LTD (ICIL-C) IMPERIAL CHEM IND PLC; (ZENE-C) ZENEGA LTD 1 PATENT ASSIGNEE: COUNTRY COUNT: DERWENT CLASS: INVENTOR:

;; C07C017-20 C07C017-20 MAIN IPC. A 19940914 (199434)* EN 10[0] B 19961218 (199703) EN 3 WEEK KIND DATE PATENT INFORMATION: (# 2275924 (# 2275924 PATENT NO

APPLICATION DETAILS:

GB 1994-3524 19940224 GB 1994-3524 19940224 APPLICATION KIND GB 2275924 A GB 2275924 B PATENT NO

DATE

PRIORITY APPLN. INFO: GB 1993-4650 19930308

C07C0017-00 [1,C]; C07C0017-20 [1,A] INT. PATENT CLASSIF.: IPC RECLASSIF.:

GB 2275924 A UPAB: 20050509

CB 2275924 A UPAB: 20050509

Production of fluoreacmatic cpds. having one or more fluoreatcentic cpd. production of fluoreaccmatic cpd. substd. in the aromatic nucleus, with having one or more chlorine atoms substd. in the aromatic nucleus, with hydrogen fluoride, in the vapour phase and in the presence of a zinc-promoted hydrogen fluoride, in the vapour phase and in the presence of a zinc-promoted by the control of the con BASIC ABSTRACT:

was found to be approx. 6.8% fluorobenzene yield was approx. 4.6%. A minor amount of benzene and traces of dihalobenzenes were discovered in the prod. MANUAL CODE: Intermediates in mir. of agrochemicals such as harbicides and posticides. The intermediates in mir. of agrochemicals such as harbicides and posticides. The process does not require disactisation reactions or formation of fluoroformate process does not require disactisation reactions of formation of fluoroformate of the process is carried out at 300-400 dag. C and 5-15 bar. The amount of hydrogen fluoride is up to 10 moles per mole of starting material. The starting material is diluted with an inear gas. The starting material is especially a chlorobenzene. Unreacted starting materials are recycled. The catalyst is a chromium-containing catalyst. In an example, a sinc-promoted chromia (sinc chromium-containing containing evaluation of the containing evaluation of the containing evaluation. to the reactor. The catalyst was prefluctinated for 16 hrs. A monochlorobonzene-saturated nitrogen feed (20 ml/min.) was mixed with the HF feed and passed to the potassium carbonate. After about one hr. of operation the reactor off-gas was diverted to a sample vessel for collection and analysis. Chlorobenzene conversion reactor and dried for 60 mins. HF was red to the reactor at 60 ml/min. to prefluorinate the catalyst at 300 deg.C. A nitrogen flow of 100 ml/min. was added prefluorinate the catalyst at 300 deg.C. A nitrogen flow of 100 ml/min. reactor system. The reaction prods were passed to a 21 batch scrubber

THE THOMSON CORP on STN L73 ANSWER 2 OF 22 WPIX COPYRIGHT 2007

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Serial No.: 10/572,628 Page 11 of 36 STIC STN search 2/9/2007

C2005-13537 [45]
C2005-13537 [45]
Stable carbonous catalyst particles for, e.g.
syn-gas reactions in ebullated/fluidized bed reactors for 2005-442660 [45] ACCESSION NUMBER: DOC. NO. CPI: DOC. NO. NON-CPI: TITLE:

producing alcohol products, comprises active inorganic catalytic powder and carbonaceous liquid binder

material

A81; H04; J04; P73

DERWENT CLASS: INVENTOR:

(HYDR-N) HYDROCARBON TECHNOLOGIES INC COMOLLI A G; GANGULI P S PATENT ASSIGNEE:

PATENT INFORMATION:

COUNTRY COUNT:

B01J021-18 MAIN 1PC B1 20050614 (200545) * EN 14[5] ž 3 WEEK KIND DATE US 6906000 PATENT NO

APPLICATION DETAILS:

US 2001-14955 20011211 DATE APPLICATION KIND US 6906000 B1 PATENT NO

PRIORITY APPLM. INFO: UB 2001-14955 20011211 INT. PATENT CLASSIF.:

B01J021-18 B01J023-00; B01J023-48; B01J031-00; B32B015-02 SECONDARY: MAIN:

BASIC ABSTRACT

mixed together, carbonized, and partially oxidized at elevated temperature to US 6906000 Bl UPAB: 20051222
NOVELTY - Stable carbonous catalyst particles comprises active inorganic catalytic powder and carbonaceous liquid binder material that are

form a basic inner porous carbon coating.

DETAILED DESCRIPTION - Stable carbonous catalyst particles comprises active inorquanic catalytic powder and carbonosceous liquid binder material that are mixed together, carbonized, and partially oxidized at elevated temperature to form a basic inner porous carbon coating bonding together the inorquaic catalytic powder and providing a uniform composition and structure having increased particle strength and surface area. The catalyst particles have total carbon content of 2-25 weights, 1.0-5.0 pound (1b/hm crush strength, 50-300 m2/g surface area, and 0.02-0.100 inch diameter particle size. An INDEPENDENT CIAIM is also included for a method for making stable carbonous catalyst particles containing an inorganic catalytic powder and a porous catbonized binder material comprising providing an inorganic catalytic

powder and mixing the powder with carbonaceous liquid binder material heving molecular weight of 200-700, and forming uniform powder-liquid binder mixture having a paste consistency; forming the powder-liquid binder mixture into shaped soft stable catalyst particles having 0.02-0.100 inch diameter; heating the shaped carbon-coated particles; and partially oxidizing the carbon-coated particles at 700-1000degrees? temperature in a flow of inert gas containing and first carbonizing the carbonaceous liquid binder material by heating the shaped soft catalyst particles to 800-1400degrees? temperature in an inert atmosphere for 1-4 hours and converting the carbonaceous liquid binder to a porous graphite form and basic inner carbon coating the catalytic powder in 0.1-5 volumes concentration oxygen atmosphere for 1-4 hours and forming micropores on the graphite surface of the stable carbonous carbon-coated catalyst particles

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USE - For used in, e.g. syn-gas reactions in abullated/fluidized bed reactors for producing alcohol products and Fischer-Tropsch synthesis liquid

ADVANTAGE - The invention provides improved crush strength and

attrition resistance.

DESCRIPTION OF DRAWINGS - The figure is a general process flowsheet utilizing downflow fixed bed or upflow ebullated bed type catalytic reactor for catalytic reaction processes, such as for syngas feedstream conversions for producing alcohols and Fischer-Tropsch liquid products.

Resulting feedstream (15) Combined stream (17)

Catalytic reactor (20) Effluent stream (21)

Hot phase separator (22)

Distillation section (28)
CPI: AlO-E05B; AlO-E11; All-B05; Al2-Wilk; H04-E04; H04-E05; H04-F02E; H04-F05; J04-E04 MANUAL CODE:

INORGANIC CHEMISTRY - Preferred Component: The inorganic catalytic powder includes zinc chromite, cesium-promoted zinc chromite, copper-promoted zinc

TECH

chromite, and potassium- and manganese-promoted zircomia powder. ORGANIC CHEMISTRY - Preferred Component: The inorganic catalytic

powder includes zinc chromite, cesium-promoted zinc chromite, copper-promoted zinc

chromite, and potassium— and manganese-promoted zirconia powder.

POLYMERS - Preferred Component: The carbonaceous liquid binder materials
include partially polymerized furfuryl alcohol, furfuryl alcohol resins,
polyvinyl acetree, polyvinyl buttes, polyvinyl chlorides, coal-derived
hydrocarbon liquid, or waxes from Fischer-Tropsch synthesis process: The

basic inner carbon coating includes micropores created in the basic carbon coating by carbonization in an inert atmosphere at 800-1400degrees? temperature for 24 hours, and partial oxidization at 700-1000degrees. Temperature for 24 hours for creating the micropores in the basic carbon coating. The basic inner carbon-coated catalyst particles have a porous outer secondary carbon-coating layer carbonized and partially oxidized after a second application of carbonaceous liquid binder

Preferred Process: The production of carbonous catalyst

porous carbon coating layer, partially oxidizing the basic inner and outer carbon coating layer at 700-1000degrees? temperature for 2-4 hours and forming micropores in the basic and outer carbon coatings, providing a by further contacting the particles with a carbonaceous liquid binder then carbonizing the outer liquid binder at 800-1400degreesF temperature, and heating and partially oxidizing the carbonous particles and providing an subsequent outer carbon coating on the basic inner carbon-coated particles outer porous carbon coating layer on the shaped basic inner carbon-coated particles. The outer coating of the carbonaceous liquid binder is applied to the shaped soft catalyst particles before the first inner carbon-coated particles, carbonizing the outer coating of the carbonaceous liquid binder at 800-1400degreesF temperature for 1-4 hours, partially oxidizing the carbon-coated particles to provide the outer particles further includes providing outer carbon coating(s) by applying an outer coating of the carbonaceous liquid binder to the basic shaped

smaller than 200-mesh. The carbonaceous liquid binder meterials have molecular weight of 200-700. The catalyst particle crush strength is 1.44.5 $\mathrm{lb/mm}$. The particles have an extrudate shape and 0.025-0.075 inch diameter. Preferred Property: The inorganic catalytic powder has size carbonizing step.

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THE THOMSON CORP ON STN	normethylaniline	OSMYNINA G V; MERKIN A A; SOBOLEVSKII V S; UTROBIN A N	:	MAIN IPC		C07C211-48	TON DATE	APPLICALION	RU 2003-131054 20031022		
	WPIX COPYRIGHT 2007 THE LINGUIST COOKS 2005-755518 (77) WPIX COOS-200437 (77) COOS-2005-2004 method for preparing n-methylaniline nacestage method for preparing n-methylaniline	E14; J04 BELYAKOV N G; GORBUNOV B N; KOSMYNINA G V; MERKIN A N; BELYAKOV V T; SHARKINA V I; SOBOLEVSKII V S; UTROBIN A NIKOLAEV YU T; SHARKINA V I;	(PIGM-R) PIGMENT STOCK CO		KIND DATE WEEK LA PG	C2 20051027 (200577)+ RU [0]				PRIORITY APPIN. INFO: RU 2003-131054 20031022	.: c07C211-48 C07C209-26
Scribi 100 For con-	NSWER 3 OF 22 ION NUMBER: 5. CPI:	TITLE: DERWENT CLASS: INVENTOR:	PATENT ASSIGNEE: COUNTRY COUNT:	PATENT INFORMATION:	ON TNOT KG	1	APPLICATION DETAILS:	PATENT NO	RU 2263107 C2	PRIORITY APPLN. INF	INT. PATENT CLASSIF.: MAIN:

NOVELTY - Invention relates to the improved method for preparing N-RU 2263107 C2 BASIC ABSTRACT

copper-conditing decays to unspirating active for two stages in two inDENAIDD DESCRIPTION - The process is carried for two stages in two inare fed into enheact reactors and nitrobenzene and methanol or their mixture
line connected contact reactors and nitrobenzene is fed into the first reactor and forming in layers charging the catalyst in
methanol - into the second reactor using in layers charging the catalyst in
not exceed 350degreesC and volume is 10-50% of the total volume of catalyst
not exceed 350degreesC and volume is 10-50% of the total volume of catalyst
not exceed 350degreesC and volume is 10-50% of the total volume of catalyst
seed in this contact reactor. The preferable mole ratio nitrobenzene is
nethanol : hydrogen = 1:3:15, respectively. The separate feeding of reagents
is possible. For example, all nitrobenzene is fed into the first contact
contact reactor in the mole ratio 1:2 or 2:1, or all nitrobenzene is fed into
in the amount 1:5 mole par a mole of nitrobenzene, As a rule, 50-70% of all
the first contact reactor and methanol is fed into the second contact reactor
in the amount 1:5 mole par a mole of nitrobenzene, As a rule, 50-70% of all
the second reactor. In both contact reactor and 30-50% is fed into
the second reactor. composition is used, weight-%: copper oxide, 21.4-26.4; chrome oxide, 3.4-5.8; aluminum oxide, 3.3-2.3; binary copper oxide and zinc chromite of empirical aluminum oxide, 3.3-2.2; binary copper oxide, 54.5-119. Usually, formula: 2nxcu/cz204 wherein x = 0.8-10; y = 0.4-0.9; 54.5-119. Usually, aluminum oxide granules impregnated with copper, chrome and zinc salts in the ratio of active components = 2:1:1; respectively, are used in upper part of methylaniline from nitrobenzene, methanol and hydrogen in gaseous phase on a copper-containing catalyst comprising zinc and chrome compounds. the following composition is used mainly, weight-%: copper oxide, 37-40; chrome oxide 18-20; zinc oxide, 20, and aluminum oxide, the balance, or in both contact reactors a copper-containing catalyst of the following

the first contact reactor.

USE - Organic chemistry, chemical technology.

ADVANTAGE - Improved preparing method.8 cl, 8 ex MANUAL CODE: CPI: E10-B04A1; J04-E01

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			•									۲
THE THOMSON CORP ON THE CONVERTING HYDROCARDONS to cocarbons involves contacting talyst produced by a ZSM-5 zeolite with a		. TPC	66-3000000	C0 / C0 03 - 22	11 14 14		1998-34051 19980303 2000-558126 20000425					I) 00-62001,10029-00 [I
THE THOMSON WPIX iss for converting ic hydrocatebons in ith catalyst proc leached ZSM-5 zec	TROLEUM CO	;		(0)B NG +		APPLICATION	US 1998-34051 19980303 US 2000-558126 2000042		PATENT NO	US 6074975 A		3
977348	A41; E19; no. YAO J (PHIP-C) PHILLIPS PETROLEUM CO 1		KIND DATE WEEK	B1 20020709 (200329)* EN		KIND	CIP of		KIND	CIP of	PRIORITY APPLN. INFO: US 2000-558126 20000425 US 1998-34051 19980303	•
.R: 22 W	DERWENT CLASS: INVENTOR: PATENT ASSIGNEE: COUNTRY COUNT:	PATENT INFORMATION:	PATENT NO	US 6417421	APPLICATION DETAILS:	PATENT NO	1 B1	FILING DETAILS:	PATENT NO	US 6417421 B1	PRIORITY APPLN. INFO	STOOK TO BE SEED TO
			•									

B01J0023-06 [N,A]; B01J0023-06 [N,C]; B01J0029-00 [I,C]; B01J0029-40 [I,A]; B01J0037-00 [I,C]; B01J0037-28 [I,A] INT. PATENT CLASSIF.: IPC RECLASSIF.:

BASIC ABSTRACT:

NOVELTY - A hydrotreating process involves contacting a fluid which comprises a hydrocarbon with a catalyst under predetermined conditions to convert the hydrocarbon to olefins and 6-8C aromatic hydrocarbons. The catalyst is produced by contacting an acid-leached 25M-5 zeolite with a

phosphorus compound, Description - A hydrotreating process involves contacting DESCRIPTION - A hydrotreating process involves contacting fluid which comprises a hydrocarbon with a catalyst under predetermined fluid which convert the hydrocarbon to an olefin and a 6-8C aromatic conditions to convert the hydrocarbon to an olefin and a 6-8C aromatic hydrocarbon. The catalyst is produced by:

(1) contacting an acid-leached ZSM-5 zeolite with a phosphorus compound such as, phosphorus oxide, phosphorus pentoxide, phosphorus oxychioride, phosphoric acid, phosphites and/or phosphoric acid, phosphites and/or phosphorus compound into the acid leached ZSM-5;

(ii) contacting the first promoted ZSM-5 with a second promoter which is a zinc compound, such as zinc nitrate, zinc titanate, zinc allicate, zinc borate, zinc molybale, zinc borate, zinc fluorosilicate, zinc fluorotitanate, zinc chromate, zinc tungstate, zinc zirconate, zinc chromate, zinc phosphate, zinc tungstate, zinc chromate, zinc phosphate, zinc tungstate, zinc zirconate, zinc aluminate, zinc phosphate, zinc phosphate, zinc acetate dihydrate, diethylzinc and/or zinc 2-ethylhexanoate;

(iii) heat-treating the second promoted ZSM-5.

The acid-leached ZSM-5 has been previously suspended in an acid solution in amount 0.01-700 grams per liter. The solution has an initial pH lower than 6 and is subjected to a treatment at 70-120 degrees C for 30 minutes to 20 hours under 1 atmosphere pressure. USE - Converting hydrocarbons to olefins and 6-8C aromatic Scrial No.:10/572,628 Page 15 of 36 STIC STN search 2/9/2007

CHEMICAL ENGINEERING - Preferred Materials: The fluid can be gasoline from catalytic oil cracking processes, pyrolysis gasoline from thermal cracking of saturated hydrocarbons, naphthas, gas oils and/or reformates preferably naphtha. The ZSM-5 is washed, dried and calcined after the Preferred Process: The condition comprises a weight hourly space velocity of the fluid at 0.01-100 g feed/g catalyst/hour, under 0-1000 psig, and at 250-1000 degrees C. TECH

preparation of catalyst composition e.g. for polymers, by combining ZSM-5 zeolite, clay, and zinc compound compound, steaming, contacting with phosphorous compound 2000-474857 [41] WPIX 1999-214119; 1999-214120; 1999-311583; 1999-326416; 2000-430053; 2001-528507 C2000-142223 [41] THE THOMSON CORP on STN WPIX COPYRIGHT 2007 L73 ANSWER 5 OF 22 ACCESSION NUMBER: CROSS REFERENCE: DOC. NO. CPI: TITLE:

(PHIP-C) PHILLIPS PETROLEUM CO A41; E19; H04 DRAKE C A; WU A; YAO J and calcining PATENT ASSIGNEE: COUNTRY COUNT: DERWENT CLASS: INVENTOR:

B01J029-06 MAIN IPC A 20000704 (200041)* EN 9[0] ይ 3 WEEK KIND DATE APPLICATION DETAILS: PATENT INFORMATION: US 6083865 PATENT NO

US 1997-890540 1997009 US 1997-919987 19970828 US 1998-172642 19981014 DATE APPLICATION US 6083865 A CIP of US 6083865 A Div Ex US 6083865 A KIND PATENT NO

US 5883033 A US 5898089 A PATENT NO 1998-172642 19981014 CIP of KIND US 6083865 A US 6083865 A PATENT NO

FILING DETAILS:

Page 15 of 36

US 1997-890540 19970709

PRIORITY APPLIN. INFO: US

Serial No.:10/572,628 Page 16 of 36 STIC STN search 2/9/2007

US 6083865 A UPAB: 20060116

US 6083865 A UPAB: 20060116

NOVELY - Process for converting hydrocarbons to more valuable oleffins NOVELY - Process for converting to a converting to a zSH-5 zeolite, a lay and a zinc compound under a DETAILED DESCRIPTION - The process comprises:

(1) combining a ZSH-5 zeolite, a lay and a zinc compound under a (2) steaming the olay-bound zeolite to produce a modified zeolite to produce a modified zeolite with a phosphorus compound under a (3) contacting the modified zeolite with a phosphorus compound under a condition sufficient to incorporate the phosphorus compound into the modified zeolite to produce a zn- and P-containing zeolite; and zeolite to produce a zn- and phosphorus-containing zeolite, where the zeolite to produce a zn- and phosphorus-containing zeolite, zinc compound is selected from zinc titanste, zinc elicited zinc zinconate, zinc fluorosilicate, zinc fluorosilicate, zinc fluorosilicate, zinc diethylzinc, zinc zeonate, zinc diethylzinc, zinc zeonate, zinc diethylzinc, zinc zeonate debydrate, diethylzinc, zinc zeonate debydrate, diethylzinc, zinc zeonate debydrate, zinc modified zeonate depominations zinc zeotate debydrate, zinc modified zeonate zinc zinc zeonate debydrate, zinc zinc zeonate zeonate debydrate, zinc zeonate zeonat DUSE - used any employed and oleffins.

producing organic compounds and oleffins the producing organic compounds and oleffins the catalyst enhances the deposition of coke ADVANTAGE - The catalyst enhances the deposition of coke benzene, toluene and xylene (BTX), and also suppresses the deposition of coke benzene, toluene and xylene ANNUAL CODE: phosphorus pentoxides, phosphorus oxychloride, phosphoric acid, phosphines, phosphites, phosphates, and combinations of two or more of these phosphites, phosphates, and combinations of two or more composition as an INDEPENDENT CLAIM is also included for the zeolite composition as The zinc compound is zinc silicate and the phosphorus compound is triethyl the weight ORGANIC CHEMISTRY - Preferred Amounts: The weight ratio of clay to zeolite The composition comprises zinc silicate and triethyl phosphate, the weigh ratio of clay to solite being 15 - 1:20 to 20:1 and the variant ratio of promoter to zeolite being 0.01:1 to 1:1.
Whe weight ratio of promoter to zeolite is 1:7 - 5:1 and the weight ratio of promoter to zeolite is 0.05:1. B01J0029-00 [1,C]; B01J0029-06 [1,A]; B01J0029-40 [1,A]; C1G0029-00 [1,C]; C1G0035-095 [1,A]; C1GG0045-58 [1,C]; C1GG0045-64 [1,A]; C1GG0045-64 [1,A]; C1GG0047-16 [1,A]; C1GG0047-16 [1,A] USE - Used in petrochemical industry for use as feedstocks for of two or more of these, and the phosphorus compound is selected from E31-K07; E35-C; E35-K04; H04-E; H04-F02E; N01-D02; N03-B02; N03-F; N04-B; N05-E01; N06-B is 1:7 - 5:1 and the weight ratio of promoter to zeolite is 0.04:1 during a hydrotreatment process: MANUAL CODE: J02B3; E10-J02C3; E31-K05B; INT. PATENT CLASSIF.: used above. IPC RECLASSIF.: BASIC ABSTRACT: TECH

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PATENT INFORMATION:

PATENT ASSIGNEE:

INVENTOR:

COUNTRY COUNT

DERWENT CLASS:

for the conversion of hydrocarbons to aromatics such as

(PHIP-C) PHILLIPS PETROLEUM CO

toluene, xylenes, e A41; E14; E17; H04

Process for preparing a ZSM-5 based catalyst

WPIX

WPIX COPYRIGHT 2007 2000-422401 [36] C2000-127672 [36]

ANSWER 6 OF 22

173

ACCESSION NUMBER: DOC. NO. CPI: TITLE:

THE THOMSON CORP on STN

DENNERY COLUMN

Page 17 of 36

APPLICATION DATE	WO 1999-IB79 19990119 AU 1999-17795 19990119 AU 1999-17795 19990119 DE 1999-6900667 19990119 EP 1999-900107 19990119 EP 1999-900107 19990119 EP 1999-1B79 19990119 WO 2000-3704 20000715	PATENT NO	Publ AU 9917795 A EP 1049815 A W 9936591 A	1998-IB81 19980120 1998-126559 19990139 2000-616333 20007115 : C25C003-12 5003-00 [1,C]; C25C0003-12 [1,A]; C25C0007-00 [1,C];	ABSTRACT: WO 199036591 Al UPAB: 20060115 WO 199036591 Al upab: 20060115 WO 199036591 Al upab: an exal-based, high temperature resistant, WO 199036791 WO 199036591 Al upab. WO 199036591 Al upab. WO 199036791 Al upab. WO 1
APPLICATION DETAILS: DATENT NO KIND	WO 9996591 A1 AU 9917795, A AU 747906 B DE 69906697 E EP 1049915 A1 EP 1049915 A1 EP 1049915 A1 EP 1049915 B1 EP 1049915 B1 EP 1049915 B1 DE 69906697 E US 6425992 B1 US 6425992 B1 US 6425992 B1 US 6425992 B1	FILING DETAILS: PATENT NO KIND	AU 747906 B Previous Publ AU DE 69906697 E Based on WC AU 9917795 A Based on WC EP 1049815 AI Based on WC EP 1049815 BI Based on WC EP 1049814, INFO: US 1998-126206 19980730	PRIORITY AFPLY: THE TOTAL SECTION TO 1998-IBB1 19980120 THE 1998-IBP3 19980119 THE 1998-IBP3 19980129 THE 1998-IBP3 1998-IBP3 19980129 THE 1998-IBP3 199	BASIC ABSTRACT: WO 1999018591 A1 UPAB: 20060115 WO 1999018591 A1 non-carbon, metal-based, high temperature NOVELTY - A non-carbon, metal-based, high temperature solutions of aluminum by the electrolysis of alumina dissolution of a molicial carrier to a substrate olicidal carrier to a substrate olicidal carrier to a substrate olicidal carrier to ammersion into the electrolyte and (B) is applied prior to immersion into the electrolyte and electrolysis by connection to the positive current supply, alectrolysis by connection to the positive current supply.

1111111

Serial No.:10/572,628 Page 18 of 36 STIC STN search 2/9/2007

No. 9936591

No. 9917795

No. 2000007104

No. 2000007104

No. 2000007104

No. 474906

No. 6425992

EP 1049815

Scrial No.: 10/572,628 Page 19 of 36 STIC STN search 2/9/2007

The coating (B) is obtained from a number of applied layers selected from: (a) a liquid solution, (b) a dispersion in a liquid or a paste, (c) a from: (a) a liquid or a paste, and/or (d) a pasty or non-pasty slurry. Heat treatment is optionally carried out between two consecutively

At least one layer is formed from a polymeric and/or colloidal carrier. After final hear treatment coating (B) is electrically conductive and After final hear treatment coating (B) is electrically conductive and has, during operation in the cell, an electrochemically active surface for the oxidation of oxygen ions present at the surface of the anode. INDEPENDENT CLAIMS are included for:

(i) a method of manufacturing the anode by application of coating (B) onto substrate (A), with optional intermediate heat treatment between applied layers and a final heat treatment;

(ii) a cell for the production of aluminum by electrolysis of alumina (ii) a cell for the production of aluminum by electrolysis of alumina

dissolved in a fluoride containing electrolyte containing at least one anode;

(iii) a method for the production of aluminum in the cell containing the anode.

USE - The anode is useful for the electrolysis of alumina, to produce aluminum.

ADVANTAGE - The anode has a long life and high electrochemical activity and is easily prepared.
CPI: All-B05; Al2-E09; M28-B; M28-C01
MANUAL CODE:
EPI: X25-R02

Member(0004)
ABEQ EP 1048915 A1 UPAB 20060115
ABEQ EP 1048915 A1 non-carbon, metal-based, high temperature resistant,
NOVELTY - A non-carbon, metal-based, high active anode of a cell for
alectrically conductive and electrolysis of alumina dissolved in a
alectrically conduction of aluminum, by the electrolysis of alumina dissolved in a
the production of aluminum, by the alectrolysis of alumina dissolved in a

fluoride-containing electrolyte is prepared by application of a polymeric

and/or colloidal cerrier to a substrate.

DETAILED DESCRIPTION - The anode has a metal based carchemically oxidation-resistant substrate (A) to which an adherent electrochemical active multilayer coating (B) is applied prior to immersion into the electrolyte and startup of electrolysis by connection to the positive

The coating (B) is obtained from a number of applied layers selected from: (a) a liquid solution, (b) a dispersion in a liquid or a paste, (c) a suspension in a liquid or a paste, and/or (d) a pasty or

Heat treatment is optionally carried out between two consecutively non-pasty slurry.

After final heat treatment coating (B) is electrically conductive At least one layer is formed from a polymeric and/or colloidal applied layers. carrier.

and has, during operation in the cell, an electrochemically active surface for the oxidation of oxygen ions present at the surface of the anode. INDEPENDENT CLAIMS are included for:

(ii) a cell for the production of aluminum by electrolysis of alumina dissolved in a fluoride containing electrolyte containing at least (i) a method of manufacturing the anode by application of coating onto substrate (A), with optional intermediate heat treatment between applied layers and a final heat treatment; one anode; and

ADVANTAGE - The anode has a long life and high electrochemical - The anode is useful for the electrolysis of alumina, (iii) a method for the production of aluminum in the cell containing the anode. produce aluminum.

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Serial No.:10/572,628 Page 20 of 36 STIC STN search 2/9/2007

activity and is easily prepared.

INORGANIC CHEMISTRY - Preferred Composition: (A) is metal, alloy, an intermetallic compound or a cermet, preferably nickel, copper, cobalt, chromium, molybdenum, tantalum and/or iron as the metal and/or oxide in TECH

(A) has a surface pre-coating or pre-impregnation, preferably of ceria. (B) is an oxide, oxyfluoride phosphide and/or carbide, preferably containing at least one fertite or chromite, preferably cobalt, manganese, nickel, magnesium and/or zinc ferrite. The ferrite is doped with at least one oxide consisting of chromium, titnoum, tin or zircohium oxide. The one oxide consisting of chromium, titnoum, tin or zircohium oxide. The ferrite is nickel ferrite, optionally partially substituted with Fe2t. (B) is a chromite consisting or iron, cobalt, copper, manganese, beryllium, calcium, strontium, barium, magnesium, nickel or zinc

oxygen from atomic oxygen, consisting of iridium, palladium, platinum, rhodium, ruthenium, silicon, tin or zinc, the lanthanide series, mischmetal or their oxides and/or compounds. (B) contains an electro-catalyst for the formation of molecular

chlorate, perchlorate or a metal organic compound, preferably an alkoxide, conformate, accetate of aluminum, silicon, yttrium, cerium, thorium, zirconium, megnesium or lithium. Each colloid or polymer precursor or reagent contains a chelating agent such as acetyl acetone or ethyl (B) contains one or more dried colloids or polymers consisting of colloids alumina, silica, yttria, certa, thoria, zirconia, magnesia, lithia, tin oxide, zinc oxide monoaluminum phosphare or cerium acetate. The colloid or polymer are derived from precureors and respents which are solutions of at least one salt consisting of a chloride, sulfate, nitrate,

of Formula M(OR)z, where M = a metal or complex cation; R= alkyl, and z The solutions of metal organic compounds, principally metal alkoxides,

Preferred Method: At least one layer is applied by painting, spraying, dipping, brush, electroplating or rollers. A solution, dispersion, suspension or slurry is applied in very liquid, liquid, thick and/or pasty

(A) is pre-coated or pre-impregnated by painting, spraying, dipping or infiltration with reagents and precursors, gals and/or colloids before application with reagents and precursor, containing certa or a application of (B), preferably using a solution containing certa or a application of Several liquid containing leaves are applied and allowed to dry at least partially in ambient air or assisted by heating before to dry at least partially in ambient air or assisted by heating before at least one constituent which reacts with (A) to form (B) and the at least one constituent which reacts with (A) to form the coating. A solid applied constituent(s) are reacted with (A) to form the coating, A solid applied layer is applied onto (A) by pleame spraying, are spraying, physical vapor The anode may be reconditioned by clearing at least worn and/or damaged parts of the active coating from (A) and then reconstituting at least the deposition, chemical vapor deposition or calendaring rollers.

side of at least one bipolar electrode and/or a terminal anode. The cell contains means to dirculate the electrolyte between the anodes and facing cathodes and//or means to facilitate dissolution of alumina in The cell contains an aluminum wettable cathode and is in a drained configuration on which aluminum is produced and continuously drained. The cell is in a bipolar configuration where the anodes form the anodic electrochemically active coating. Preferred Electrolysis: The electrolyte is cryolite.

The electrolyte temperature is 750-970 degrees C. the electrolyte.

THE THOMSON CORP ANSWER 8 OF 22 WPIX COPYRIGHT 2007

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Serial No.:10/572,628 Page 21 of 36 STIC STN search 2/9/2007

Scrib No.1907-1908-1997-402501 (37) WPIX ACCESSION NUMBER: C1997-129938 (37) DOC. NO. OFI: N1997-33793 (37) DOC. NO. NON-CPI: N1997-33793 (37) TITLE: Synthesis gas - by catalytic conversion using synthesis gas - by catalytic conversion and catalytic conversion and catalytic conversion and catalytic conversion and catalytic conversion synthesis	DERWENT CLASS: E17-C17. H04: J04; P84: S06 DERWENT CLASS: E17- H04: J04: P84: S06 INVENTOR: CARONOW V 17. ROSTONIN N N. SEDYCH A D OKOROKOV V 75. ROSTONOV V 17. ROSTONIN N N. SEDYCH A D OKOROKOV V 75. ROSTONIN N GOROKOV V A	PATENT ASSIGNEE: (FALK-I) FALKEVICH CV. (COUNTRY COUNT: 19	:. NO:	PATENT NO KIND DATE (1997)37) * RU 11[0] C07C001-04 < MD 9728108 A1 19970807 (199833) RU 6[0] C07C001-04 < RU 2100332 C1 19971227 (199833) RU 6[0]	APPLICATION DETAILS:	PATENT NO KIND	WO 9728108 A1 RU 1996-102071 19960201 RU 2100332 C1	PRIORITY APPLM. INFO: RU 1996-102071 19960201 INT. PATENT CLASSIF.: IPC RECLASSIF.: C07C0001-00 [1,C]; C07C0001-04 [1,A]; C10G0002-00 [1,A]; IPC RECLASSIF.: C10G0002-00 [1,C]	BASIC ABSTRACT: We 1997028108 A1 UPAB: 20050703 Which 5C fraction is enriched with The method comprises conversion of synthesis gas (HZ/CD = 1-12) to The method comprises conversion of fraction is enriched with The method comprises conversion of the isopentane and isobeannes. In particular with isopentane and isobeannes. Process is conducted at 330-400° C, pressure 6-15 MPe, and volumetric rate of isoperatefin hydrocarbons. In particular with isopentane and volumetric rate of process is conducted at 30-11000/hour, using bi-component catalyst process is conducted at 30-11000/hour, using bi-component catalyst comprising penetalityepe solites and zinc/chromium catalyst of methoniol synthesis with atomic ratio Zn/(Zn + Cr) = 0.6-0.8 containing 10-50 weight's comprising penetalityty solites and zinc/chromium catalyst of method of zeolite component. To improve results, zeolite component consists of cystalline alumino-zillacte, having silice/alumina ratio 25-150, and contains of zeolite component. To improve results, zeolite component consists of cystalline alumino-zillacte, having silice/alumina ratio 25-150, and contains of zeolite component. To improve results, zeolite component consists of cystalline alumino-zillacte, having silice/alumina ratio 25-150, and contains of solite and catalyst is activated in reducing medium at temperature net conducted at 300-400. C. MADVANTAGE - The method increases productivity and yield of ADVANTAGE - The method increases productivity and yield of ADVANTAGE - The method comprises conversion of synthesis gas (HZ/CO = 1-12) to mixture The method comprises conversion of synthesis gas (HZ/CO = 1-12) to mixture of 1-11 Chydrocarbons, in with isopentane and isobeaxnes. Process is hydrocarbons, in particular with isopentane and isobeaxnes. Process is hydrocarbons, in particular with isopentane and isobeaxnes. Comprised at 330-400. C. pressure 6-15 MPa, and volumetric rate of conducted at 330-400. C. pressure 6-15 MPa, and volumetric rate of conducted at 330-400. C. pressure 6-15 MP	CateLyst Compression Dage 21 of 36
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Page 22 of 36

PRIORITY APPLIN. INFO: DE 1996-19608852 19960307 INT. PATENT CLASSIF.:

35 10/572 628 Page 22 of 36 STIC STIN search 2/9/2007

Serial No.:10/572,628 Page 22 of 36 STIC STN search L/9/LUU of actalyst of methanol synthesis with atomic ratio $zn/(zn + cr) = 0.6-0.8$, containing 10-50 wit's of zoolite component. To improve results, zeolite component consists of crystalline alumino-silicate, having silicate component consists of crystalline alumino-silicate, having solite component consists of crystalline alumino-silicate, having solite component of school of rate earth elements, and catalyst is olited action of such actions of solite actions actions of solite actions and method medium at temperature not higher than 400 deg.C. olite actions of production of high-octane components of engine fuels with low content of arcmatic hydrocarbons by catalytic and yield of ADVATAGE - The method increases productivity and yield of isoparaffins.	2 WP	A: ASSIGNEE: COUNT: INFORMATION:	KIND DATE WEEN A2 19970910 (199747)* DE A1 19970911 (199747)* DE A 19971222 (199818) DA A3 19971229 (199818) EN B 19980616 (199811) EN B 19991208 (200002) DE G 2000013 (200002) DE B 20040426 (200428) JA		EP 794166 A2 DE 1996-1960862 A1 DE 19608852 A1 DE 1997-200881 19970815 DE 59700811 G EP 794166 A3 EP 794466 B1 DE 59700811 G TP 994466 B1 TP 994466 B1 TP 994466 B1 TP 997-46819 19970303 UP 1997-46819 19970303 US 5767326 A US 5767326 A	FILING DETAILS: PATENT NO PATENT NO FILING DETAILS:	DE 59700811 G Based on EP 794166 A DE 59700811 G Previous Publ JP 09328445 A JP 3522484 B2 Previous Publ
S derina S de S d	83 . 11 83	DEAND INVEN PATEN COUNT		APP		FI	

Serial No.:10/572,628 Page 23 of 36 STIC STN search 2/9/2007

C07C029-141 B01J0023-16 [I,C]; B01J0023-86 [I,A]; B01J0023-76 [I,C]; B01J0023-80 [I,A]; C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07C0029-00 [I,C]; C07C0029-141 [I,A]; C07C0031-00 [I,C]; C07C0031-133 [I,A] IPC RECLASSIF.:

EP 794166 A2

Preparation of hydroxymethylcyclopropane comprises hydrogenation of formylcyclopropane using copper chromite, zinc chromite and/or copper/zinc as a catalyst. The temperature is kept at 20-250 °C, and the hydrogen pressure is UPAB: 20050519

USE - Hydroxymethylcyclopropane is used as an intermediate for the preparation of bactericides, fungicides, herbicides and insecticides. ADVANTAGE - High yields are obtained, even at relatively low temperatures (when copper chromite is used as a catalyst). Alcohol side products

are not produced in the reaction, allowing easier work-up. MANUAL CODE: CPI: C10-E04B; N02-B; N03-F01; N03-F

Member(0003)

ABEQ JP 09328445 A UPAB 20050519

Preparation of hydroxymethylcyclopropane comprises hydrogenation of proparation of hydroxymethylcyclopropane using copper chromite, incomite, zinc chromite and/or copper/zinc as a catalyst. The temperature is kept at and/or copper/zinc as a catalyst. The temperature is kept at 20-250 °C, and the hydroxymethylcyclopropane is used as an intermediate for the USE - Hydroxymethylcyclopropane is used as an intermediate for the preparature is the copper chromite is used as a catalyst).

temperatures (when copper chromite is used as a catalyst).

Alcohol side products are not produced in the reaction, allowing easier control.

Member (0005)

Preparation of hydroxymethylcyclopropane comprises hydrogenation of formylcyclopropane using copper chromite, zinc chromite and/or copper/zinc as a catalyst. The temperature is kept at and/or copper/zinc as a catalyst. The temperature is kept at 20-250 °C, and the hydrogen pressure is 10-130 bar.

USE - Hydroxymethylcyclopropane is used as an intermediate for the preparation of bactericides, fungicides, herbicides and insecticides. ADVANTAGE - High yields are obtained, even at relatively low temperatures (when copper chromite is used as a catalyst). work-up. ABEQ 1

Member (0006)

USE - Hydroxymethylcyclopropane is used as an intermediate for the preparation of bactericides, fundicides, herbicides and insecticides. ADVANTAGE - High yields are obtained, even at relatively low temperatures (when copper chromite is used as a catalyst). Alcohol side products are not produced in the reaction, allowing easier proparation of hydroxymethylcyclopropane comprises hydrogenation of formylcyclopropane using copper chromite, zinc chromite and/or copper/zinc as a catalyst. The temperature is kept at 20-250 °C, and the hydrogen pressure is 10-350 bar. UPAB 20050519 ABEQ EP 794166 B1

THE THOMSON CORP on STN WPIX WPIX COPYRIGHT 2007 1997-130675 [12] W C1997-042038 [12] ANSWER 10 OF 22 ACCESSION NUMBER: DOC. NO. CPI: 53

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Serial No. 10/572,628 Page 24 of 36 STIC STN search 2/9/2007
Catalyst for conversion of carbon monioxide contains oxide(s) of copper, aluminium and zinc, and
double copper-zinc chromite DERWENT CLASS:

E36, J01; J04 SEREGINA L K; SHARKINA V I; SOBOLEVSKII V (SHAR-I) SHARKINA V I INVENTOR: PATENT ASSIGNEE:

COUNTRY COUNT:

PATENT INFORMATION:

B01J023-86 MAIN IPC A1 19960810 (199712)* RU 4[0] ğ 4 WEEK KIND DATE SU 1078708 PATENT NO

ţ

APPLICATION DETAILS:

SU 1982-3507952 19821109 DATE APPLICATION SU 1078708 A1 PATENT NO

PRIORITY APPLM. INFO: SU 1982-3507952 19821109

B01J0023-76 [1,C]; B01J0023-86 [1,A]; C01B0003-00 [N,C]; C01B0003-16 [N,A] INT. PATENT CLASSIF.: IPC RECLASSIF.:

BASIC ABSTRACT:

chromium opd., to improve activity and atability and reduce bulk density of the extalyst, in the form of double zinc-copper chromite, of empirical formula znxcuyCr204 (1), where x is 0.8-1.0 and y is 0.4-0.9, in a ratio of components (in weights) of copper oxide 21.4-26.4, zinc oxide 3.38-5.80, aluminium oxide 3.3-22.3 and (1) 52.92-64.5. SU 1078708 A1 UPAB: 20050519 The catalyst is based on oxides of copper, zinc and aluminium, and

USE - The CO conversion catalyst is used in the purificn. of gaseous

mixts. containing toxic admixtures.

ADVANINGE - The catalyst has improved activity and stability and ADVANINGE - The catalyst has improved activity and stability and CPI: E11-002; E31-N05B; J01-E02D; J01-E reduced bulk density. MANUAL CODE: E03F; J04-E04;

NO2-D; NO3-D01; NO3-F

THE THOMSON CORP on STN has improved heat and wear resistance J04; Q73 N1994-098132 [15]

Catalyst for butane fuel oxidation zinc chromite on alumina carrier and WPIX WPIX COPYRIGHT 2007 C1994-057920 [15] 1994-125208 [15] L73 ANSWER 11 OF 22 ACCESSION NUMBER: DOC. NO. CPI: DOC. NO. NON-CPI:

ISWAGILOV Z R; KIRICHENKO O A; TSUKAN M P (ASIT-C) AS SIBE CATALYSIS INST; (UYNS-C) UNIV NOVOS PATENT ASSIGNEE: COUNTRY COUNT INVENTOR:

DERWENT CLASS:

PATENT INFORMATION:

; B01J023-06 MAIN IPC Al 19931230 (199415)* RU 4[0] 4 WEEK KIND DATE SU 1503132 PATENT NO

APPLICATION DETAILS:

KIND PATENT NO

Page 24 of 36

APPLICATION

Serial No.:10/572,628 Page 25 of 36 STIC STN search 2/9/2007

THE PROTEST BOLLOUGH TANK TO THE PROTEST OF THE PRO	1011 00-1000BLOD 111 11 11 11 11 11 11 11 11 11 11 11 1
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Serial No.:10/572,628 Page 26 of 36 STIC STN search 2/9/2007

THE THOMSON CORP on STN L73 ANSWER 13 OF 22 WPIX COPYRIGHT 2007 ACCESSION NUMBER: 1987-123790 [18] WPIX

de ylate				;;;	! ! !	; ;	
Old Table 2017 [21] Production of cyclopropyl-methanol used as bactericide production of cyclopropyl-methanol used as bactericide intermediate - by hydrogenating cyclopropane-carboxylate catalyst catalyst		Out of the	MAIN 1FC	C07C031-133	C07C029-132 C07C031-133	C07C031-133	
methano nating			LA PG	3[0]		m .	
y1-1.			4	엄	5 温 8 2	S &	
11997-651377 [21] C1987-651377 [21] Production of cycloprop intermediate - by hydr easter on zinc chromite catalyst	CO3; E15 NEHRING R; OTTE W (CHEM-C) HUELS AG		WEEK	19870430 (198718)* DE 3(0)	19870516 (198725) 19880119 (198805) 19880817 (198833)	19880922 (198839) 19880816 (198927)# 19930827 (199337)	
7-05 ncti rmed	E15 M-C)		DAT	1987	1987 1988 1988	1986 1986 1993	
1907 1207 C1987-051377 Production o intermediate ester on zin catalyst	CO3; E15 NEHRING 1 (CHEM-C) 12		KIND DATE	4.4	(< < m	υĸm	
ACCESSION NUMBER: DOC. NO. CPI: TITLE:	DERWENT CLASS: INVENTOR: PATENT ASSIGNEE: COUNTRY COUNT:	PATENT INFORMATION:	PATENT NO	DE 3538132	EP 222989 JP 62106033 US 4720597	DE 3660542 ES 2002539 JP 05058609	
ACCESSI DOC. NC TITLE:	DERM INVE PATE COUN	PAT					

DE 1985-3538132 19851026
DE 1985-3538132 19851026
EP 1986-111694 19861024
JP 1986-252116 19861024
JP 1986-252116 19861024
US 1986-252116 19861024 JP 62106033 A PATENT NO Based on KIND DE 3538132 A
DE 3660542 G
EP 222988 A
ES 2002539 A
JP 62106033 A
JP 05056609 B
US 4720597 A g 60985050, df PATENT NO PATENT NO FILING DETAILS:

DATE

APPLICATION

KIND

APPLICATION DETAILS:

Page 26 of 36

Serial No.:10/572,628 Page 27 of 36 STIC STN search 2/9/2007

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Pref. the reaction occurs at 240-380 deg.C and 240-300 bar using a 1-8C alkyl cyclopropane- carboxylate. The catalyst (e.g. BASF 55-10) contains 40-80% 2nd and 20-40% Cr203. The process is operated batchwise is a slurry-phase reactor (e.g. autoclave) or continuously in a trickle-phase (e.g. fixed-bed)
                                                                                                                                                                                                                                                                                                                                                           DE 3538132 A UPAB: 20050424

Production of cyclopropyl methanol (I) is effected by hydrogenating a production of cyclopropyl methanol (I) in the presence of a Zn chromite catlayst cyclopropane carboxylate ester (II) in the presence of a Zn chromite catlayst in a slurry—or trickle-phase reactor, at an H2 pressure of 200-320 bar and a temperature of 200-350 deg.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   reactor with co- or countercurrent H2 flow.

USE/ADVANTAGE - (I) is an intermediate for bactericides, fungicides, USE/ADVANTAGE - (I) is an intermediate for bactericides, without using herbicides and insecticides. Process gives quantitative yields without using expensive or difficult-to-handle additives. MANUAL CODE:
                                                                     BOLJ0023-00 [1,A]; BOLJ0023-00 [1,C]; BOLJ0023-16 [1,C]; BOLJ0023-26 [1,A]; COTBOO61-00 [1,A]; COTBOO61-00 [1,C]; COTCO029-00 [1,C]
                                                                                                                                                                                                                                               [I,A]; C07C0029-149 [I,A]; C07C0031-00 [I,C]
PRIORITY APPLM. INFO: DE 1985-3538132 19851026
ES 1986-2748 19861024
                                                                                                                                                                                                                                                                                                                                                [I,A]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E10-E04F; N03-D; N03-F
                                                                            INT. PATENT CLASSIF.:
                                                                                                                                                                                                                                            MAIN/SEC.:
; CO7C0029-136 ;
; CO7C031-13 ;
                                                                                                                                              IPC RECLASSIF.:
                                                                                                                                                                                                                                                                                                                                                                                   BASIC ABSTRACT
```

Member (0004) ABEQ US 47205

USE/ADVANȚAGE - Opd. (I) is obtd. in very high yield. Opd. (I) is an intermediate for bactericides, fungicides, herbicides and insecticides. Selective prodn. of hydroxymethylcyclopropane (I) comprises hydrogenation of a cyclopropanearboxylic acid ester (II) in 11q. phase in the presence of a catalytic amt. of zinc chromite at elevated temp. (pref. 200-350) (240-300

of 200-120 bar and a temp. of 200-50 day.c.

of 200-120 bar and a temp. of 200-50 day.c.

alkyl creation occurs at 240-536 day.c. and 240-300 bar using 1-8C

alkyl cyclopropane carbovylate. The catalyst (e.g. BASF 55-10)

alkyl cyclopropane carbovylate. The process is operated batchwise is contains 40-80% in 20-40% Cr203. The process is operated batchwise is a slurryphase reactor (e.g. autoclave) or continuously in a trickle-phase a slurryphase reactor with co- or countercurrent H2 flow.

(e.g. fixed-bad) reactor with co- or countercurrent H2 flow.

USE/ADVANTAGE - (I) is an intermediate for bactericides, fungicides, herbicides and insetticides. Process gives quantitizative yields without prodn. of cyclopropyl methanol (I) is effected by hydrogenating a cyclopropane carboxylate ester (II) in the presence of a 2n chromite catalyst in a slurry or trickle-phase reactor, at an H2 pressure THE THOMSON CORP on STN using expensive or difficult-to-handle additives. (J62106033-A) ABEQ JP 93058609 B UPAB 20050424

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- by extrusion with inorganic binder

Shaping activated copper- or zinc

C1986-111166 [21]

L73 ANSWER 14 OF 22 ACCESSION NUMBER: DOC. NO. CPI: TITLE:

WPIX COPYRIGHT 2007 1986-256691 [39] N

Serial No.:10/572,628 Page.28 of 36 STIC STN search 2/9/2007

and pelleting to form air-stable, non-hydroscopic catalyst for solid bed systems DERWENT CLASS:

ARTENE G; BANCILA V; BEJENARU G; BLEJOIU S; COJOCARU G; OPRESCU I; PREDETEANU F (CHCR-N) COMB CHIMIC (CHOR-N) CENT CHIM ORGAN BUCUR; (CHCR-N) PATENT ASSIGNEE:

NVENTOR:

CRAIOVA COUNTRY COUNT:

PATENT INFORMATION:

MAIN 5 3 A 19860331 (198639) * RO KIND DATE PATENT NO RO 88984

APPLICATION DETAILS:

RO 1984-114345 19840423 APPLICATION KIND RO 88984 A PATENT NO

B01J0023-16 [I,C]; B01J0023-26 [I,A]; B01J0023-72 [I,A]; B01J0023-72 [I,C] PRIORITY APPLM: INFO: RO 1984-114345 19840423 INT. PATENT CLASSIF.: B01J0023-16 [1,C]; B01J0

BASIC ABSTRACT:

shaped by cellet-formation, comprising extrusion with Ba, Mn, Ca, etc. are shaped by cellet-formation, comprising extrusion with an inorganic binder. USE/ADMYRAGE - Energy consumption is reduced by over 50% and toxicity and corrosiveness are lowered appreciably. Non-hygroscopic catalysts are formed, which are highly stable in air, and useful in hydrogenetion, reduction, desulphurising and the dehydrogenation of alcohols in gas-solid fixed bed, as well as as ass-liquid solid fixed bed systems. CPI: E35-A; E35-C; E35-P; J04-E04; N03-D; N03-F MANUAL CODE:

WPIX COPYRIGHT 2007 THE THOMSON CORP on STN 1983-23842K [10] WPIX C1983-023309 [121] Ethylene glycol production by oxalic ester hydrogenation using a catalyst containing copper and chromium, in as solvent e.g. a lower alcohol L73 ANSWER 15 OF 22 ACCESSION NUMBER: DOC. NO. CPI:

KOBAYASHI M; MASAI H; MIYAWORI H; SHIMOMURA T; UNO (MITN-C) MITSUBISHI GAS CHEM CO INC DERWENT CLASS:

PATENT ASSIGNEE: COUNTRY COUNT: INVENTOR:

PATENT INFORMATION:

MAIN IPC PG M A 19830129 (198310) * JA 7 WEEK KIND DATE JP 58015930 PATENT NO

!

APPLICATION DETAILS:

JP 1981-114094 19810721 APPLICATION KIND JP 58015930 A PATENT NO

INT. PATENT CLASSIF.:

Page 28 of 36

B0130023-00 [I,A]; B0130023-00 [I,C]; B0130023-76 [I,C]; B0130023-86 [I,A]; C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07C0023-00 [I,C]; C07C0023-00 [I,C]; C07C0029-140 [I,A]; C07C0029-149 [I,A]; C07C0029-149 [I,A]; C07C0029-140 [I,A]; C07C0051-20 [I,C]; C07C0031-20 [I,A]; C07C0067-00 [I,C]; Serial No.:10/572,628 Page 29 of 36 STIC STN search 2/9/2007 IPC RECLASSIF.:

BASIC ABSTRACT:

alkyl. X and X are (ar)alkyl, or substd. (ar)alkyl. R' and R3 are 1-4C alkyl. X and X are H, CH3 or C2H5. n is 1-10). Ethylene glycol can be produced in high yields and at high selectivity under a relatively low pressure of up to 200 atmospheric The catalyst is pref. used in an amount of 1-80 (2-40) pts. weight, per 100 pts. weight of oxalic ester. The reaction is pref. conducted at 180-350 (200-300) deg.C, under a pressure of at least 80 (100-300) kg/sq.cm.G. WANUAL CODE:

THE THOMSON CORP on STN NO2-B01; NO2-C; NO3-D; NO3-F CPI: E10-E04B; 194

alcohol - contains copper chromite, zinc chromite, copper oxide and zinc oxide mixture 1980-003245 [20] WPIX catalyst for fatty acid hydrogenation PIX COPYRIGHT 2007 ANSWER 16 OF 22 ACESSION NUMBER:

(RAFI-N) INST RAFINAR PETROC E17; J04 PATENT ASSIGNEE: COUNTRY COUNT: DERWENT CLASS:

PATENT INFORMATION:

MAIN IPC ይ A 19791130 (198020)* RO 4 WEEK KIND DATE PATENT NO RO 67908

APPLICATION DETAILS:

DATE

APPLICATION

RO 1975-81499 19750226 DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER B01J023-86 KIND INT. PATENT CLASSIF.: MAIN/SEC.: RO 67908 A PATENT NO

WPIX COPYRIGHT 2007 THE THOMSON CORP on STN 1978-43955A [24] WPIX 1978-43955A [24] WPIX Sylams mixture production by methylation of toluene - using zinc chromite and alkali metal exchanged molecular sieve, giving low amount of meta-isomer (SUNO-C) SUN OIL CO PENNSYLVANIA SEITZER W H DERWENT CLASS:

22

ANSWER 17 OF L73 ANSWER 17 OF ACCESSION NUMBER:

TITLE:

Page 29 of 36

INVENTOR: PATENT ASSIGNEE: COUNTRY COUNT:

Serial No.:10/572,628 Page 30 of 36 STIC STN search 2/9/2007

MAIN IPC US 1977-813158 19770705 APPLICATION Б 3 A 19780425 (197824) * EN KIND DATE KIND APPLICATION DETAILS: PATENT INFORMATION: US 4086289 PATENT NO PATENT NO

C07C0002-00 [1,C]; C07C0002-86 [1,A] PATENT CLASSIF.: INT. PATENT CLASS. IPC RECLASSIF.:

US 4086289 A

US 4086289 A UPAB: 20050417

US 4086289 A UPAB: 20050417

The methylation of toluene with H2 and CO and/or CO2 to give a mixture of xylenes uses as catalyst in chromite mixed with an alkali metal exchanged of xylenes uses as catalyst in chromite molecular sieve containing a stoichiometric excess of an alkali metal molecular sieve is a K exchanged zeolite 13x.

The xylenes mixture contains a low proportion of m-isomer and ethyl benzene and a relatively high proportion of p-xylene. MANUAL CODE:

E10-J02B3; NO3-F

WMX COPYRIGHT 2007 THE THOMSON CORP on STN 1495-39483W [24] WPJX Aldabyde Or Netone production by alcohol dehydrogenation with a doped zinc chromite catalyst containing extra chromium oxide L73 ANSWER 18 OF 22 ACCESSION NOMBER:

DERWENT CLASS:

to fatty

CK C) WACKER CHEM GMBB

PATENT ASSIGNEE: COUNTRY COUNT:

ţ ! MAIN IPC ሯ 3 임임 A 19750605 (197524)* B 19780105 (197802) WEEK KIND DATE PATENT INFORMATION: DE 2358254 DE 2358254 PATENT NO

APPLICATION DETAILS:

DE 1973-2358254 19731122 APPLICATION KIND DE 2358254 A PATENT NO

B01J023-86; C07C045-16; C07C047-02; C07C049-06 INT. PATENT CLASSIF.:

The 2358254 A UPAB: 20051230

The process for the production of aldehydes or ketones by The process for the production of alcehols in the presence of a Zn chromite in a process for the production of alcehols in the presence of a Zn chromite catalyst (Zno:Cz203 molar ratio-0.8-1.2:0.5-0.8) doped with 2-10 weight CuO and catalyst (Zno:Cz203 molar ratio-0.8-1.2:0.5-0.8) doped with 2-10 weight CuO and the Catalyst (Zno:Cz203 molar the deficient of the catalyst of the didition of the catalyst by addition by the catalyst of the catalyst; dehydration side crows in the catalyst and product formation (aldehydes or kerones reactions are totally aliminated and by-product formation (aldehydes or kerones with fewer C atoms) is limited to <1.5 weights; conversions of 85-90% can be achieved

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Serial No.:10/572,628 Page 31 of 36 STIC STN search 2/9/2007 NANUAL CODE: CPI: E10-D01C; E10-F02B; E35-C; E35-P

arbons	DATE 19980422	LU, MC, NL, 19980422	19980422 19981223 A 19970423 W 19980422
ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN 1998:709025 HCAPLUS F <u>ull-taxt</u> 129:31950:100025 HCAPLUS F <u>ull-taxt</u> DCCUMENT NUMBER: 129:31950 To producing halogenated hydrocarbons process for producing halogenated hydrocarbons INVENTOR(S): Tatemateu, Shin Tatemateu, Shin PATENT ASSIGNEE(S): PCT Int. Appl., 36 pp. SOUNCE: Company Ltd., Japan PCT Int. Appl., 36 pp.	PACHENT TYPE: Japanese PAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: RAID DATE PATENT NO. PATENT NO	M. JO. US W. JD. US RW. AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, FW. AT, SE A1 19991117 EP 1998-917629 19980422 EP 957074 B1 20030219	20060111 GB, IT, NL 20031016 ES 1998-917629 20010109 US 1998-147432 yP 1997-106376 WO 1998-JP1850

MARPAT 129:315961

Entered Sin: Up Nov 1990 the like represented by formula C2HCINFY (x, y = 1-8) is fluorinated with hydrogen fluoride in the presence 5, y = 0-4, and x+y = 5) is fluorinated with hydrogen fluoride in the presence 5, y = 0-4, and x+y = 5) is fluorinated at least one metal selected of a specific fluorination catalyst surface of 100-250 m2/g prior to using it. (2) among zinc, zirconium, and manganese and a composite oxide of chromium, (2) among zinc, zirconium, and (3) not showing crystallinity, which is typical to chromium fluorination, and (3) not showing crystallinity, which is typical to chromium fluorination, and (3) not showing crystallinity, which is typical to chromium fluorination, and (3) not showing crystallinity, and sive selection catalyst possesses high activity and durability and gives R-125 with represented by formula C2HClx-ZFyz (1szSxs5, y = 0-4, and x+y = 5). The replaced by formula C2HClx-ZFyz (1szSxs5, y = 0-4, and x+y = 5). The replaced produced amount of R-115. Thus, 7.2 L 10 weights agreeus Nil was slatically gives for a 80° for 1 slowly added drophise to a solution of 2,570 g chromium intrate and 100 g zinc relatively reduced amount of the hydroxides formed were stirred at 80° for 1 nitrate in 15 L purified R-02 f the hydroxides formed were stirred at 80° for 1 nitrate in mas with hot water at 80°, dried at 100° for 10 h, and molded into hit or cytellal were filted at 100° for 10 h, and molded into oxide with hot water at 80°, dried at 100° for 10 h, and molded into oxide with hot water at 80°, dried at 100° for 10 h, and molded into oxide with hot water at 80°, dried at 100° for 10 h, and molded into oxide with hot water at 80° for 8 h to give zinc-chromium complex oxide with hot veryetallinity based on X-ray diffraction anal. The pellets (100 mL) were packed in an incomel reactor and activated by passing a mixture of (100 mL) were packed in an incomel reactor and activated by passing a mixture of of HF and N at 250° with contact time of 10 5 for 24 h. A 3:1 mol mixture of HFR-123 was fed to the reactor at 290° with contact time of 10 s to give R-124 and R-125 with 52 and 47% selectivity, resp., concentration of R-125 of and 5% selectivity, resp., concentration of R-125 with 41 and 5% selectivity, resp., concentration of R-125 with 41 conversion of R-123 after 310 days.

Conversion of R-123 after 310 days.

REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT OTHER SOURCE(S): ED Entered STN: AB Dichlorotrifle

Page 31 of 36

A1 19940929 WO 1994 GAZYC GN, FI, JP, KR, NO, RU, UA, US DE, DK, ES, FR, GB, GR, IE, II, LU, MC, NL, PT, SE A1 19940929 GA 1994-2157528

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W: AU, E RW: AT, E CA 2157528 WO 9421580

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WO 1994-GB498

19940929

Serial No.:10/572,628 Page 32 of 36 STIC STN search 2/9/2007 LT3 ANSWER 20 OF 22 HCAPLUS COPPRIGHT 2007 ACS ON STN ACCESSION NUMBER:

NOTION NUMBER:	1995:886060			
	123:260369	90	saturated aliphatic halogenated	ated
	Fluorinación di	ns in the	the vapor phase using crystallized	8111280
	catalysts.	,	Eric: Lerch, Ale	in;
INVENTOR (S):	Garcia, Franc	cancois; La	Garcia, Francois; Lacroix, Ett., 2011.	
;	Kousser, see	S.A. FI		
PATENT ASSIGNEE(S):	Eur. Pat. Appl.,	Appl., 13	13 pp.	
SOURCE:	CODEN: EPXXDW	XXDW		
DOCUMENT TYPE:	Patent			
	French			
FAMILY ACC. NUM. COUNT:	, <u>.</u>			
PATENT INFORMATION:			ON NOTE OF SECTION	DATE
ON FARE	KIND D	DATE	APPLICATION NO.	
		1111111	EP 1994-402779	19941205
EP 657408		19930614		
EP 657408	E	IT, NL	0257	19931209
22, 22,	A1	19950616	FR LUGGITATION	
FR 2713633		19960119	Ch 1994-2136938	19941129
		19950610		19941205
	_	19980201		19941208
		0.000.00		19941209
	Κ.	19950808	1994-119762	19941209
1107827		195050		19931209
PRIORITY APPLIN. INFO.:				4
ED Entered STN: 31 O	ot 1995	fluorinate	Intered SIN: 31 Oct 1995	ase in the
AB The title hydrocar	o potroui	r oxides o	ptionally containing 21	other active
presence of (un) a	Apported to	al oxides	presence of (un)supported of the metal oxides being in the crystalline state unit	mesettanton.
Betal, With most	vet having	a surface	Hetal, With Most of the aurface area of 28 m2/g atter Hr active 27 m2/g	nr-accivacion.
unsupported carat	highly Cl	vstalline	. high crystalline state and a surface area of 20 mm/s	2 10 2
The presence of a litylity of the catalysts.	fe of the	catalysts		
t mprove tile to				
	21110101	COPYRIGHT 2007	4	
22		1995;255360 HCAPLUS	LUS Full-text	-
ACCESSION NUMBER:	122:12515	15	by fluorit	ation of
DOCUMENT NOTIFIED	Product	tion of dif	production of difluoromediane of increase	
	dichlo	dichloromethane	dichloromethane	; Bonniface,
INVENTOR(S):	Devid 1	David William		
: (5) BENDESCO	Imperial	al Chemica	Chemical Industries PLC, UK	
SOURCE:	PCT Int.	Appl.,	11 pp.	
	SODEN:	CODEN: PIXAUZ		
DOCUMENT TYPE:	English	£		
FAMILY ACC. NUM. COUNT:				
PATENT INFORMATION:				DATE
CN ENGERGE	KIND	DATE	APPLICATION NO:	
		000000	WO 1994-GB498	19940314
	7	C 75 1377		

10/572,628 Page 33 of 36 STIC STN search 2/9/2007

19940314	10040314		. 19940314	19940314		19940314		19940314		19940314	19940314	19940314	10040314	2004.001	1400400	19940315	D100#AA 1	0.1004001	19900000	1993032	W 19940314	1.
10 01 1004-2157878		11 AU 1994-62134		12 BR 1994-0201		T, LU, NL, PT		125 -: :004-101526										1004-DE298			GB 1993-6089 WO 1994-GB498	
C 20050510	A1 19940929	19941011	B2 19980521	A 19951212	Al 19980520 n1 19980520	ES, FR, GB,	«	B 20001025	A 19960327	B 19990721	19960827	19980701	10980716	13	(1) 1998916.	A 1994 A	A 19940900	A1 2002030	A1 20201	∢	 o	
Serial No.:10/572,628 Fage 33 of 20050510	CA 2157878	CA 2157878	AU 9462134	AU 691487 BR 9406201		EP 690833	K: pp.				ON 104422/	JP 08508029	ES 2115940	FS 2116586	RII 2116288	78 9401818	ZA 9401826	IN 188326	IN 187446	US 5763704	PRIORITY APPLN. INFO.:	

Entered STN: 21 Dec 1994

A process of the production of CH2F2 comprises contacting CH2C12 with HF in the presence of a fluorination catalyst comprising zinc or a compound of zinc and a metal oxide, fluoride or oxyfluoride. Passing CH2C12, HF, and nitrogen and a metal oxide, fluoride or oxyfluoride. Passing CH2C12, mol ratio 27.1) over a zinc/chromium mixed oxide catalyst at 250 gave 92% CH2F2. 8 8

APPLICATION NO. Vinyl esters Imperial Chemical Industries Ltd. HCAPLUS COPYRIGHT 2007 ACS on STN 1947:11901 HCAPLUS 41:11901 Unavailable 41:2428f-1 Patent L73 ANSWER 22 OF 22 HCAL ACCESSION NUMBER: DOCUMENT NUMBER: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT ASSIGNEE(S): DOCUMENT TYPE: LANGUAGE: TITLE:

DATE

DATE

KIND

PATENT NO.

ED Entered STN: 22 Apr 2001

Entered STN: 22 Apr 2001

By Almyl esters of carboxylic acids may be prepared by passing a mixture of C2H2

Winyl esters of carboxylic acids may be prepared by a.g., Zn.Cd. or Zn.Cd.Hg

(I) and vaporized acid over a mixed-oxide catalyst, e.g., Zn.Cd. or Zn.Cd.Hg

(I) and vaporized acid over a mixed-oxide stars selectivity in the chief acid acid oxide acid acid acid acid acid oxide acid 88

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solution of 504 g. (NHI) 20:207 and 270 g. 28:5% NHOOH to 980 g. Zn(NO3) 2.6H20, and 81 g. HgC12 in 3.1. water; 305 ml. addnl. 28.5%

NH40H then was added to give a mixture with pH 7.1-7.2. The precipitate was nH40H then was added to give a mixture of to give the Zn-Cd-Hg chromite as a black powder. Binders such as NH4H2P04, H3B03, or Na silicate in 1-2% black powder. Binders such as NH4H2P04, H3B03, or Na silicate in 1-2% concentration are useful in preventing disintegration of the catalysts.

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Scrial No.:10/572,628 Page 35 of 36 STIC STN search 2/9/2007

Search History

PLU=ON 12018-19-8/RN PLU=ON L1 PLU=ON AMOS T7/AU PLU=ON AMOS T7/AU PLU=ON SIEVERT A7/AU PLU=ON SIEVERT A7/AU PLU=ON (L3 OR L4 OR L5 OR L6) AND L2 09:37:43 ON 09 FEB 2007		ON 0 (E) CA (C) PR (OGEN (1-39-	120 AND L23 (1L5 OR L26) (1L9 OR L26) (1L9 AND CAPAL7/OBI 1L29 AND L23 (L27 OR L30) 1L20 AND L3 (L27 OR L30) 1L8 AND L33 (L37 OR L35) (L34 OR L35) (L37 OR L35)	(CR (L) ZN (L) 0)/ELS (L) 3/ELC.SUB (CR (L) 0)/ELS (L) 2/ELC.SUB L39 L40 AND L41 L40(L) PREP/RL L40(L) PREP/RL Page 35 of 36
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/007/6/7 u								CATALYSTS+OLD, NT/CT OR			L45 OR L46 OR	R L53 OR L55 OR L56)									i	EX	OR AY<=2003 OR PRY<=2003)				2007						2007	
36 of 36 STIC STN search 2/9/200	144 AND L41	146 (L) CAT/ RL	HYDROGEN FLUORIDE/CN	148	L47 AND L49	L46 AND L49	(L42 OR L43)		CATALYSTS+OLD, NT/CT	ND 1.54	L43 OR	(L50 OR L51 OR L52 OR	50 ON 09 FEB 2007	! ! .	 NZ PETR-EL KN	Z	100	L61 OR L58	z	163	L64 OR L	L62 AND	AND L65 AND (PY<=2003	(L67 OR L68)	09:39:14 ON 09 FEB 2007	27 ON 09 FEB 2007	AT 09:39:45 ON 09 FEB DUPLICATES REMOVED)		09:40:26 ON 09 FEB 2007	44 ON 09 FEB 2007	L69 NOT L16	41:21 ON 09 FEB 2007 (L37 OR L57) NOT L7	09:41:50 ON 09 FEB JPLICATE REMOVED)	
		NO PLUCION				NO PLUI NO NO		NO PLU-ON	8		NO PLUT	NO PLU-ON	AT 09:37:	LAO628WX1A/A			P.U.						NO BILLIAON	NO PLUS=ON	A.	AT 09:39:27	TERED		AT	AT 09:40:44 ON	NO PLU-ON	NED AT 09:41:21 NN PLU=ON (L37	ENTERED .71 L72 (1	
Serial No.: 10/3/2,628 Page		187)SEA ABB=ON	1) SEA ABB=ON	SEA	SEA	6)SEA ABB=ON	S	SEA	FLUORINATION	Ä		8 SEA ABB=ON	THE CENTERED	ğ	1)SEA ABBEON			30) SEA ABBEON	SEL		SE	SEA	3)SEA ABB=ON 20)SEA ABB=ON	20 SEA ABB=ON	'HCAPLUS' ENTERED D QUE L7	WPIX' ENTERED DOUG L16	WPIX, HCAPLUS' EN		'HCAPLUS' ENTERED D QUE L37 D QUE L57	'WPIX' ENTERED AT	D QUE LOS 18 SEA ABB=ON	'HCAPIJUS' ENTERED 5 SEA ABB=ON	'WPIX, HCAPLUS' ENTERED AT 22 DUP REM L71 L72 (1 D	
Serial No.: 1	L45 (1.46	148	L49 (.50	151	153 (154 (٠	.) 551	L56 (1.57	7.177		, a	. 097	161	162 (_	_	ree (L67 (L68 (109	Eire	FILE	FILE	,	FILE	FILE	171	FILE L72	FILE L73	î
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